

ABSTRACT

The present invention provides a method for growing a thin nitride film over a substrate and a thin nitride film device, in which the polarity of the thin nitride film can be controlled by a low temperature process. In the method for growing the thin nitride film over a substrate, a Ga face (2) and a N face (3) are formed over a c face sapphire (Al_2O_3) substrate (1), the Ga face (2) growing in +c face, and the N face (3) growing in -c face.